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An interpretative phenomenological analysis to explore how four pre-school children experience an educational activity based on eco-therapy principles.

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An interpretative phenomenological analysis to explore how four pre-school children experience an educational activity based on eco-therapy principles.

### ABSTRACT

Eco-therapy is a form of psychotherapy which incorporates natural materials and environments into clinical practice to improve mental wellbeing and symptoms of psychological distress in individuals. Previous research into the experiences of eco-therapy has primarily focused on adults. This study builds on existing eco-therapy literature by exploring the individual experiences of four pre-school children, who took part in an activity based on eco-therapy principle. Semi-structured interviews were utilised in conjunction with multiple data collection tools, such as a non-verbal stimulus and visual narratives, in order to obtain rich, detailed accounts of the children's experiences. Through Interpretative Phenomenological Analysis (IPA), three themes emerged: Place Attachment, Using Metaphor and Sensory Contact. The children exhibited a range of positive emotions which were associated to being in the garden during the activity. Interaction with nature facilitated the use of metaphors which encouraged the children to attach meaning to their experience. Various forms of pleasant sensory experiences were described by all participants. An unexpected finding was reported: there was an aspect of the direct physical contact with nature which two participants did not enjoy. This research provides a basis for further exploration into aspects of eco-therapy which some clients may not find therapeutic.

<b>KEY WORDS:</b>	<b>ECO-THERAPY</b>	<b>INTERPERATIVE PHENOMENOLOGICAL ANALYSIS</b>	<b>PLACE ATTACHMENT</b>	<b>METAPHOR</b>	<b>SENSORY CONTACT</b>
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## Introduction

Traditional talking therapies have been found to be unsuccessful for children (Capuzzi, 2016) because children were unable to verbally communicate their anxieties and found little interest in discussing their experiences (Landreth, 2012). This led to the development of play therapy, by a woman named Anna Freud in 1946, to facilitate positive emotions and attachments in children (Landreth, 2012). Since 1946, major developments in play therapy include: development of child-centred play therapy; using play therapy in schools; establishment of the Association of Play therapy and an increase in play therapy training at universities (Landreth, 2012). Play therapy is an emerging form of psychotherapy which is used for children, between three and sixteen years of age, who suffer with a range of emotional, behavioural and social difficulties, resulting from trauma, abuse, conflicted relationships or insecure attachments (Rye, 2008). Play therapy provides children with a safe environment where they can act out their experiences and feelings through play, which is the natural self-healing process and universal language of communication for children (Landreth, 2012).

The effectiveness of play therapy has been researched greatly by psychologists, with findings strongly suggesting play therapy is an extremely useful intervention for children with behavioural, social or emotional difficulties (Mosavi and Koolaee, 2016; Rafeti et al., 2016; Kockaya and Siyez, 2017). Jarareh et al. (2016) identified that children can use play therapy to externalise their emotions, explore their feelings and recreate past events to help gain understanding of experiences (Jarareh et al., 2016), strongly supporting Landreth's theory (2012). Children under eight show greater benefits of play therapy compared with children eight years and above (Lin and Bratton, 2015), which could be because younger children rely mostly on play to express their feelings (Landreth, 2012). Contrastingly, Scott et al. (2003) investigated the effects of play therapy on sexually abused children's mood, self-concept and social competence and found that in 30% of the participants, there was no significant change. However, as the authors pointed out, the participants only took part in a twelve week play therapy intervention, which is arguably not long enough for change in symptoms to appear, due to the severity of the trauma. If longer interventions were utilised, change may have been detected in all participants.

Larson and Meyer (2007) explain that gardens are a safe environment where young children can interact with nature and understand their connection to living things. The safe environment is needed for therapists to help children explore their emotions and experiences (Trice-Black et al., 2013). Some play therapists may use eco-therapy interventions to promote the emotional and mental wellbeing of children and aid psychological healing (Robinson and Zajicek, 2005). Eco-therapy tends to occur outside the therapy room, in a green environment (Feltham et al., 2017) and utilises natural materials to establish a human-nature relationship and improve a variety of psychological symptoms (Buzell and Chalquist, 2009). Examples of type of eco-therapy interventions include: horticulture therapy (gardening); green exercise therapy, which involves walking, running and cycling in green spaces; formal eco-therapy, where therapists use a talking treatment, such as Cognitive Behavioural Therapy, whilst in a natural environment (Mind, 2015).

In recent years, eco-therapies have received support from high profile charities. In 2007, Mind received a 7.5 million fund to support their new green agenda and funded 130 eco-therapy projects across the UK, which helped 12,071 people improve their mental health difficulties (Bragg et al, 2013). A thorough meta-analysis concluded there are significant positive, psychological benefits for individuals engaging in eco-therapy (Soga et al., 2017). For example, horticultural therapies have been effective in reducing symptoms of depression, stress and anxiety (Kam and Siu, 2010). Clatworthy (2013) claims that sensory contact with natural environments enables individuals experiencing psychological distress to develop connection and communicate on a safer level. Corazon et al. (2018) reported that an eco-therapy intervention had positive long-term effects on individuals with stress-related illnesses, compared with a randomized control trial, enhancing the reliability of these findings. Furthermore, a phenomenological study conducted by Kamitsis and Simmonds (2017) explored adult's experiences of eco-therapy and found that participants felt their psychological health was enhanced by the sensory contact they had with the natural world: in particular the visual aspect of observing beautiful plants. One participant explained that connecting with nature encouraged her to develop deeper meaning to her life. This research explains the positive phenomenon adults have during eco-therapy, implying that increased use of eco-therapy in society would be beneficial for adults.

Other experiences of eco-therapy in adults reported are: feelings of achievement (Gonzalez, 2009) and increase in positive emotions, such as cheerfulness and calmness (Abraham et al, 2010). In a detailed, phenomenological study by Poulsen et al. (2016), 8 veterans took part in a ten-week eco-therapy course to help relieve symptoms of post-traumatic stress disorder. The researchers found that participants emphasized the enjoyment of sensory experiences they engaged in whilst in a natural environment: scent of plants and soil; impact of weather conditions; looking at wildlife and sounds of nature. Furthermore, the veteran's explained that the eco-therapy activities were calming, meaningful and positively impacted mood (Poulson et al., 2016). This piece of research provides great, insight into the perceptions of the veterans about eco-therapy, due to its phenomenological approach, giving deeper understanding to the importance of the human-nature relationship. Although these studies offer insight to adult's experiences of eco-therapy, children's experiences of using eco-therapy techniques in play therapy are not explored.

Greenleaf et al. (2013) found that conducting therapy sessions in a park, with a child who has been sexually abused, encouraged the client to talk more freely of her emotions and interact with the environment. This enhanced her enjoyment of therapy and improved the client's clinical outcomes (Greenleaf et al., 2013). It is reasonable to consider that if Scott et al (2003), mentioned earlier, integrated eco-therapy techniques with play therapy interventions, more positive change may have been detected in the participants. For instance, Swank et al (2015) combined play therapy and eco-therapy interventions, which effectively improved on-task behaviour in the classroom. Although this study provides useful information for the educational sector, this research fails to give insight into the children's individual experiences of the eco-therapeutic interventions. To explore this, a phenomenological approach would be needed. The literature discussed concludes that play therapy and eco-therapy have positive effects for children. However, the majority of previous research explores adult's experiences of eco-therapy, with minimal phenomenological literature

focusing on children. This research aims to adopt a phenomenological approach and uncover what experiences children attach to an activity based on eco-therapy principles. For the purpose of this research, the activity has been referred to as an 'eco-therapy activity', although it is understood the activity was not an eco-therapy session.

## **Research Questions**

The purpose of this research was to explore pre-school children's experience of an eco-therapy activity using IPA. After reviewing the literature, the main research question was constructed: How do pre-school children experience an educational activity based on eco-therapy principles? Additionally, the following sub-questions were addressed, which were constructed based on findings from previous research discussed in the background and in purpose of meeting the narrow aims of the study:

- What are their specific sensory experiences in relation to the above activity?
- What meanings do they attach to their experience?
- How does the activity impact mood?

## **Aims and Objectives**

The main aim of this research was to explore pre-school children's experiences of an activity based on eco-therapy principles. Further aims of this research were to understand the children's specific sensory experiences of the eco-therapy activity; understand meanings which the children attach to their experience and to discover how the eco-therapy activity impacted mood. This study adopted a child-centred approach which focused on the involvement of children in research.

To achieve these aims, a literature review regarding the use and experiences eco-therapy was conducted. Details of past literature was used to plan and justify methodology for this research. This study utilized aspects of eco-therapy representative of techniques used in society which formed an educational activity for pre-school children. Data was gathered via semi-structured interviews, and discussions whilst the children drew a picture of their experience. The verbal data was recorded, transcribed and analysed using IPA.

## **Methodology**

### **Design**

In order to understand the children's experiences of the eco-therapy activity, this research adopted a phenomenological design. The sample consisted of four children of pre-school age and took place at the nursery which the children attend, and researcher is employed at. The children took part in an eco-therapy activity, follow by a semi-structured interview. In order to elicit additional verbal data from the children, they engaged in discussion with the researcher whilst drawing a picture of their experience, which provided a visual narrative (Macdonald, 2009). Data was analysed using IPA.

### **Recruitment**

Participants were recruited using opportunity sampling because the children at the nursery were readily available at the time the study took place and fit the criteria of the study (Smith et al., 2012). A gate-keeper letter was given to the manager of the nursery asking if she was interested in the research taking part within the organisation (appendix 1), along with an information letter (appendix 2) and consent form (appendix 3). The researcher approached parents of six participants aged between three and four, four of which took part in the study. It was essential the children were pre-school age because this age is representative of the age of children who would use eco-therapy activities in play therapy (Rye, 2008). This was the appropriate number of participants needed for analysis, as IPA is used in research with small, homogenous samples (Smith et al, 2009). This allowed for detailed analysis to take place, so the narrow aims of the study could be addressed (Malterud et al., 2016). The children were suitably selected for this study, following a discussion with the pre-school teacher, based on: level of maturity, verbal ability, age and relationship with researcher.

## **Procedure**

Prior to data collection, the children participated in an educational, eco-therapy activity in the garden at the nursery they attend (appendix 4). The activity for the children was based on the standards for learning for their age (Early Learning HQ, 2017) and on techniques used in eco-therapy (MIND, 2015). The children experimented with natural materials such as soil, plant seeds, flowers and leaves, and were given other materials, such as a small rakes and spades, to facilitate the interaction with nature (Swank et al, 2015). During the activity, photographs were taken of the children on the nursery tablet, solely to be used for pictorial prompts in the interview. The following materials were required for the completion of this study: tray, flowers, leaves, soil, child-friendly planting seeds, plant pots, spades, forks, the nursery tablet, paper, colouring pens, stickers and a Dictaphone.

## **Data collection**

Semi-structured interviews were the appropriate data collection method for this study, as they are the exemplary method of data collection for researchers using IPA (Smith and Osborne, 2003). This is because they enabled the researcher to enter the participant's lifeworld and explore their thoughts and feelings about an experience, with the use of open-ended questions (Smith and Osborn, 2003). Additionally, semi-structured interviews allowed the conversation to stray from the guide when the participant was talking about their experiences (Willig, 2013). This enabled rich information to be gathered in purpose of answering the research questions. The questions used in the interviews were straightforward and clearly addressed the research questions (appendix 5) and the interview lasted approximately twenty minutes, considering the children were aged between three and a half and four and a half (Macdonald, 2009). During the semi-structured interview, the children were shown photographs of them taking part in the activity. This was a non-verbal stimulus that held the limited attention of the children, reminding them of their experience (Christensen and James, 2008). This crucial method gave the children opportunity to recollect and reflect on their experience and highlighted any part of the eco-therapy activity which he/she enjoyed or disliked

(Einarsdottir, 2007). For some of the children, there was a period of time between the activity and the interview, due to the interviews being conducted separately, so the photographs aided the children's memory recollection of the activity.

Next, the children drew pictures of themselves taking part in the eco-therapy activity, (appendix 6) which they described and discussed with the researcher. The researcher had a copy of topics which aimed to be explored during the conversation which enabled the research questions to be answered (appendix 5). This technique was used to enhance the amount of verbal data obtained via the semi-structured interviews and is referred to in literature as a visual narrative (Macdonald, 2009). Previous researchers have found this technique successful in obtaining a rich amount of descriptive information from children (Wesson and Salmon, 2001). Drawing pictures was a familiar activity for the children, which enabled them to communicate their lived experience in a symbolic way (Einarsdottir, 2007) and communicate their perspective effectively (Shaw et al., 2011). This method ensured a child-centred approach was adopted within the research. The topics explored in the interview and discussion were based on findings from Poulsen et al. (2016): thoughts of the eco-therapy activity; sensory experiences involved in the natural materials; feelings associated with using nature in play and meanings associated with nature. The verbal data gathered from the semi-structured interviews and discussions were recorded on a Dictaphone, ready for analysis.

## **Data Analysis**

IPA is a complex form of qualitative analysis which makes sense of participant's phenomenon, and is used when analysing detailed, first-person accounts of the participant's experiences (Smith et al, 2009). This analysis method was the most fitting choice for allowing the researcher to explore the participant's unique experiences of the eco-therapy activity. This is justified by previous literature, as IPA proved an effective analysis method for determining adult experiences of eco-therapy (Kamitsis and Simmonds, 2017; Poulsen et al., 2016). Analysing the participant's data via IPA means that the researcher could construct meaning to the participants verbal accounts of the eco-therapy activity and identify patterns in their experiences (Smith et al, 2009). Additionally, the ideographic nature of IPA enabled the researcher to truly understand how the children perceived their experience (Howitt, 2010), meaning that a child-centred approach was adopted within the research, and the research questions could be answered with certainty.

The step-by-step analytical process of IPA, outlined by Smith et al. (2009), was followed. First, the verbal data was carefully listened to and transcribed according to The Jefferson System (Jefferson, 2004). The researcher became immersed in the data by reading and re-reading, whilst doing so imagining the voice of the participant. This is a vital part of IPA which ensures the participant is the focus of the analysis. The transcript was examined for meaning and notes were made, so that important themes across the transcripts could be picked out. See appendix 6 for one page of annotated transcript. Themes were expressed as either words or phrases and generally reflected the participant's words and analyst's interpretations. This process was repeated for all the transcripts, where the ideas emerging from the first analysis was bracketed, until the process had been completed for every transcript. Next, the researcher searched for connections and patterns by clustering themes. Some



themes were discarded, but between three and five main themes for each participant were stated. Each transcript was revisited in order to understand how the participant's experience influenced their lifeworld. The transcripts were analysed in depth and the most evident themes across all participants were finalised and inserted into a table (appendix 7), with evidence from the transcripts included. Evidence of the IPA process the researcher conducted is seen in appendix 8.

### **Quality Criteria**

IPA is an intense and lengthy process which enabled rigorous exploration of participants subjective experiences to be explored (Smith et al., 2009). This complex process allowed themes to be finalised which completely reflected the participants words, providing an analysis which established trustworthiness and congruence (Smith and Osborn, 2008). IPA focuses on the individual lifeworld of each participant, which allowed for a considerably more personal and detailed approach to be taken to the research, compared with quantitative research designs (Long and Godfrey, 2004), and contributes to the transferability of findings to other situations and contexts (Andrew and Halcomb, 2009). Confirmability was achieved through the use of a member check 'like' system, where themes were discussed with the researcher's supervisor. This ensured the researcher's interpretations of the participants transcripts were a true representation of the children's experience and was not subject to research bias (Birt et al., 2016).

### **Ethical Considerations**

The researcher had strong bonds with the children, who she engaged with on a weekly basis, and the children were not taken away from nursery to take part in the research. Therefore, a positive verbal environment was created, which encourages children to express themselves freely and comfortably (Kostelnik et al., 2011). The researcher followed BPS ethical guidelines for research with children (BPS, 2009:31). One of the principles which The British Psychological Society (BPS) states that researchers must follow is to gain informed consent from the participants (BPS, 2009). Participant invitation letters, information letters and consent forms were sent to the children's parents (appendixes 9, 10, 11). The information letter provided information about who to contact in the event of distress as a result of taking part in the study. The preschool teacher was also given an information letter (appendix 2) and consent form to sign for children to be taken out of the room for the procedure (appendix 12). On the morning of the study, the children were read a short statement asking if they would like to take part in the study, and if they did, gave consent by placing a sticker on their consent form (appendix 13). It is important that the children were given the opportunity to understand the nature of the study and give consent in a way that their capabilities allowed (BPS, 2009). Parents had previously consented to photographs being taken on the nursery tablet through the nursery. Consent forms are kept confidentially in a locked filing cabinet at Manchester Metropolitan University (MMU) and will be held for ten years.

The researcher respected the participant's confidentiality and rights to withdraw (BPS, 2009). Pseudonyms were used to ensure anonymity and all recordings were kept on the researcher's laptop which was password protected and encrypted following the MMU encryption services (MMU, 2017). Direct quotes used in the

analysis and discussion section have had identifiable information removed. The recordings of the verbal data will be destroyed by the researcher after the project is submitted but all consent forms and transcriptions will be stored safely at MMU for ten years. The parents were given a debrief letter after the procedure, stating that their children's data could have been withdrawn at any point before analysis took place in January 2018 (appendix 14). The children could have refused to take part at any point throughout the study and parents understood that this would not impact their educational provision in anyway. Children were given a sticker as a thank you for taking part. The researcher had an enhanced DBS (appendix 15), as required (BPS, 2009). A risk assessment was conducted to ensure the participants were not put at risk or harm by participating in the study (appendix 16) and materials used in the activity were compliant with health and safety policies of the nursery (appendix 17). This research complied with the MMU ethical framework (MMU, 2011).

## **Analysis and Discussion**

Following the data analysis, it was apparent that patterns of experiences were consistent across the participants. Three themes emerged: Place Attachment, Using Metaphor and Sensory Contact.

### **1.Place Attachment**

All four participants distinctly demonstrated they had strong positive attachments to the garden. It was apparent that the children associated a number of emotions to being outside, such as: enjoyment, excitement, cheerfulness and happiness. For instance, when Alice, Jenny and Tom were talking about the eco-therapy activity, it is explicitly shown that they are attaching cheerful emotions to their experience, through their choice of words and laughter as they spoke:

“It was fun (h)” (Alice – line 45)

“Happy (h)” (Jenny – line 30)

“I like it very, very much” (Tom – line 50)

In particular, some of the participants excitement at recalling their experience was evident through shouting and putting emphasis on their words.

“GARDENING!” (Alice – line 2)

“NICE!” (Alice – line 43)

“we planted FLOWERS”. (Ben - line 2)

These findings build on Abraham et al. (2010), as it exemplifies that children demonstrate feelings of excitement and enjoyment, as well as cheerfulness. Having said that, feelings of calmness associated to being in a natural environment, which were found in Abraham et al. (2010), were not established among any of the participants in this study. This could be because of the nature of the children's age.

When the participants engaged in the discussion about the eco-therapy activity, whilst drawing a picture which represented their experience, all of the children drew themselves in the garden with a smile on their face. When asked why, all four participants explained that they enjoyed taking part in the activity and were happy in the garden:

“‘cause that’s is me and I am happy ‘cause (0.2) I am holding the soil outside”  
(Tom – line 75-76)

“‘cause I liked it and it was fun. (Alice – line 69)

“I am happy in the garden...” (Jenny – line 60)

“I like playing in the garden (h)” (Ben – line 75)

Place Attachment is a concept which explains how people develop emotional attachment or bonds to specific places, such as natural environments, homes or within a community (Altman and Low, 1992). These extractions evidently show that the children have formed positive place attachment to being in the garden and have developed emotional connections to their environment. Two of the participants elaborated on their enjoyment of being outside by telling the researcher about other things they like to do in the garden:

“RACING” (Ben – line 27)

Ben shouts in excitement here at the thought of racing in the garden. Jenny laughed as she told the researcher that she likes to play:

“on the swings (h)” (Jenny – line 58).

These findings support research conducted by Hawkins et al. (2016), who concluded that natural environments are considered to be meaningful places that individuals develop special bonds with. Researches imply that the presence of a strong sense of place attachment supports good mental wellbeing (Dallago et al. 2012), thus, suggesting that the children’s attachment to the garden is beneficial for their psychological health. This could be why eco-therapy has been found to be extremely successful in increasing adults and children’s mental wellbeing (Swank et al., 2015; Poulson et al., 2016). The positive feelings which the children associate with being outside suggests that conducting play therapy sessions in a natural environment, such as a garden, would be beneficial to provide children with the safe place which they need to explore their emotions through play. Play therapy in the outdoors exposes children to environmental cycles, such as weather changes and the effect these have on the natural environments, offering children understanding about the concept of change, which they can relate to their own lived experiences and relationships (Chown, 2014).

On the other hand, researches have critiqued the use of therapy outside the therapy room as having a lack of confidentiality, particularly if they are taking place in a public space, such as the wilderness or a park (Becker, 2009; Hasbach, 2013).

These concerns lead Reese (2016) to develop a guide for helping professionals apply eco-therapy techniques into their counselling and psychotherapy practices. For example, Reese (2016) explains that clinicians can protect confidentiality by selecting outdoor locations which are based on the client's treatment plan and acquiring access to nature in ways that promote the mental wellbeing of the client (Reese, 2016). Although practitioners who wish to adopt eco-therapeutic techniques into their practice would find these guidelines useful, Jordan (2014) states that current counselling and psychotherapy practice should not be so concerned about privatisation of clients and having therapy which takes place in a room environment. The associated privatisation of emotional distress is an anti-social tendency present in Western culture (House, 2006). Psychotherapists should be open to locating their clinical practises and theoretical ideologies within a wider context, which considers human evolution and cultural change (House, 2006). Taking therapy outdoors into natural environments is a way that counsellors and psychotherapists can facilitate the therapeutic process (Jordan, 2014) and support cultural change towards clinical practice which considers the vital role of nature in human existence (Jordan and Marshall, 2010).

## **2.Using Metaphor**

Another emerging theme, which was apparent cross the majority of the participants, was that interaction with nature facilitated the use of metaphors. The participants used metaphors to describe and relate to their experience. For example, when asked what it was like to engage in sensory contact with nature, Tom exclaimed:

“It smelt like a wizard’s sock” (Tom – line 12)

As Tom came to this conclusion, his face lit up, showing excitement and enjoyment at the connection he had made. Tom also stated:

“It felt like my mummy’s radiator” (Tom – line 15)

This metaphor suggests that Tom thought of home and warmth when he was feeling the soil. It could also be interpreted from this quotation that Tom associated his experience of the eco-therapy activity with feeling safe and secure at home with his caregiver. Similarly, Jenny smiled when she described what the soil smelt like to her, implying that this was a pleasant experience:

“smelt like a princess” (Jenny – line 15)

It is evident that the children considered their experience of the eco-therapy activity and related it to something that was more personal to them. The children in Pramling et al. (2010), also of pre-school age, used metaphors to describe how soil looked or smelt like. When children use metaphors, they are showing a level of understanding about their experience and this is a feature of their language which needs to be taken seriously (Pramling et al., 2010). Tom went on to explain that he liked the activity:

“right up to space” (Tom line – 50)

Here, the participant is using his knowledge of how big space is to emphasise his enjoyment of the eco-therapy activity. Similarly, when Jenny was talking about the seeds which she planted, she stated that:

“...I think it will grow bigger than nursery” (Jenny – line 63)

It can be interpreted from this quote that Jenny is using her awareness of the nursery as a big building, to explain to the researcher that she believed her seeds will grow extremely high. In these extracts, both participants are using metaphor to communicate their thoughts and feelings about their experience to the researcher. Snow et al. (2005) explain that children use metaphorical constructions to represent their life experiences. The natural materials which the children played with in the garden encouraged one of the participants, Alice, to talk about a personal experience:

“...I’m always happy (0.2) but I’m not happy when I’m poorly...I used to have chicken pox, but I don’t have it now” (Alice – line 82)

This trail of thought then developed into Alice considering what would happen if the plants were poorly as she continued to say:

“and if the plants get poorly they need ↑water” (Alice – line 87)

Here, Alice’s voice rises in intonation as she concludes that water will be given to the plants if they’re poorly, showing satisfaction that she will be able to look after them. The activity acted as a facilitator for Alice to talk about a personal life event. Using metaphors is a powerful tool used by many clinicians (Kopp, 1995) and, in play therapy, is used to encourage children to discuss significant life events (Landreth, 2012). Play therapists provide children with a range of play materials, such as creative art tools and sand trays, which act as instruments for children to explore their inner world and make connections in their experiences (Snow et al., 2005). This extraction from Alice suggests that the natural materials used in the eco-therapy activity worked in the same way.

The following statement by Jenny implies that she had an experience of feeling sad when something has been broken, and thought of this when seeing a broken plant:

“...the leaves look sad when they’re broken” (Jenny – line 24)

It is strongly implied from these extracts that the natural materials the children played with have enabled them to make connections and attach meaning to their experience. This theme strongly supports findings from Liden and Grut (2002), who reported that the natural world acted as a parallel to the participants lives, and enabled clients to talk about difficult life events by using nature metaphors. Therefore, it must be considered that eco-therapy techniques could be used in play therapy to encourage children to use metaphors, make connections in their experiences and talk about significant life events. For instance, Corazon et al. (2012) state that gardening processes, such as planting seeds, are a good starting point for metaphors which lead to personal reflection. Hartford (2011) conducted a comprehensive literature review which concluded that the use of metaphor in therapy

lead to good therapeutic outcomes for clients. Using metaphor is an important aspect of therapy because it allows the client to communicate their experience and perspective to the therapist (Skårderud, 2007) and gives therapists insight into how a client processes information and emotions (Wagener (2017).

Whilst some psychotherapists point out that clinicians must be cautious to not impose their own views on metaphors, which would negatively impact the therapeutic relationship (Chesley et al., 2011), language-based therapists would argue that metaphor is a meaningful form of language which allows the client and therapist to have a common world of shared meanings (Finlay, 2015). Ferdinand Saussure, a French linguistic, believed humans are mean-making species, who use linguistic signs as a structure to communicate meanings with each other (Saussure, 1893). Linguistic signs are an important part of the linguistic system that play a crucial role in shaping an individual's reality (Khan, 2014). Using metaphor is an example of a linguistic sign which opens up a new systemic domain for mean-making (Yang, 2018) and is an essential tool which enables therapists to understand the client's lifeworld (Finlay, 2015).

### **3.Sensory contact**

In line with previous findings (Poulsen et al., 2016; Kamitsis and Simmonds, 2017), a definite theme noted across all participants, was the range of sensory encounters which the participants experienced when having physical contact with nature, the majority of which were enjoyable. Positive emotions associated with smelling, looking at and listening to natural environments were evident from the participants descriptions of their sensory experiences, which were accompanied by smiles and laughter:

“They smelt nice” (Ben – line 8)

““Everything (h) and er (.) the smelling and looking at the FLOWERS” (Alice – line 13)

“the birds er the birds singing in the trees...it's nice” (Ben – line 53-56)

““made my hair go everywhere (h)” (Jenny – line 39)

“I liked erm (.) smelling the soil” (Tom – line 75)

“It's pretty” (Jenny – line 27)

These quotes support Franco (2017), who claims that many natural odours provoke feelings of pleasure in human beings, and Schafer (1994), who alleges that sounds specific to an environment are a component of developing place attachment. The sensory experience of hearing pleasant sounds could have contributed to the children's development of positive place attachment and feelings to the garden (Halfpenny, 2010). Furthermore, these findings build on Kamitsis and Simmons (2017), by implying that children, as well as adults, have the ability to appreciate the beauty of nature. The extractions highlight that children experience similar positive emotions during physical contact with nature as adults, strongly suggesting that eco-

therapy techniques, which enhance psychological wellbeing in adults, would be beneficial for children in the same way.

An unexpected finding in this research, which had not been recorded in past literature, is that two of the participants did not enjoy the direct physical contact with some of the natural materials. When asked by the researcher what it was like feeling the soil, Tom says:

“Yucky” (Tom – line 12).

In the same way, when Ben was asked if he liked feeling the soil in his hands he said:

“no...it was ↑yucky” (Ben – line 12).

Bens voices rises in intonation when he describes the soil as yucky, emphasising his dislike of how it felt. Both participants use the same negative word to describe their experience, which strongly indicates this was not enjoyable. These experiences expressed by Tom and Ben imply that there may be some aspect of eco-therapy which children do not enjoy. This would have to be carefully considered by therapists incorporating eco-therapeutic techniques into their practice.

Physically engaging with nature is an important aspect of eco-therapy (Buzell and Chalquist, 2009), therefore, the positive effects that eco-therapy has on individuals could be questioned if they are not physically engaging with nature. For instance, O'Brian and Murray (2007) claim children who attend forest schools experience an increase in positive emotions due to the direct physical contact with natural materials. However, Harris (2017), suggests that individual's do not necessarily need to have direct physical contact with nature, yet standing back and admiring natural environments plays a significant part in clients experiencing positive engagement. This statement alleges that individuals may have psychological benefits from solely observing nature and implies that individuals do not have to engage physically with natural materials, such as soil, to benefit from these sensory interactions. Findings from the present study indicate the importance of therapists who are integrating eco-therapy into their practice in providing a variety of eco-therapy techniques, so clients who do not wish to engage in direct physical contact with nature do not have to in order to benefit therapeutically. Clinicians must be flexible when delivering therapy and tailor their techniques to the characteristics of the client (Gibbons et al., 2003). This leads to clients having increased experiences of empathy from their therapist (Gibbons et al., 2003). Competent therapists must be highly responsive to the client's needs in order for therapy to be effective (McLeod, 2012), so therapists utilising eco-therapy in their practice must be flexible and able to provide a range of experiences which meet the client's preferences.

## Summary

Overall, findings from this research indicate that there numerous pleasant sensory experiences which children have when playing with nature and being in a natural environment. The present study has built on the current body of eco-therapy literature by discovering that direct physical contact with natural materials was not enjoyable for some individuals. The natural environment and materials facilitated the

use of metaphors which the children used to attach meanings to their experience. The children's mood was significantly increased, as a range of positive emotions were noted across all participants which were associated with developing a positive place attachment to the garden.

This research does not come without its limitations. Whilst the nationality of one of the participants was Bulgarian, all of the children in this research were born and raised in England. This restricts the generalisability of these findings to children who come from a range of cultural backgrounds. Eco-therapy activities may be experienced completely differently by children who live outside of England. Therefore, it would be useful for this study to be replicated in different countries, with children from a variety of cultural backgrounds. This would enhance the ethnocentricity of the literature.

Following the unexpected finding from this study, further exploration in to the specific sensory experiences associated with eco-therapy that may not be enjoyed by some individuals is needed. It would be beneficial for counselling and psychotherapy practice to have deeper understanding into why some children do not enjoy direct physical contact with nature, and whether this would impact the effectiveness of eco-therapy interventions.

### **Reflexive Analysis**

Reflexivity is the ability to understand and reflect on how your position as a researcher has impacted your research (Pitard, 2017). The complex nature of conducting qualitative research means that personal reflexivity is essential (Watt, 2007). Willig's (2013) reflexive model identifies two types of reflexivity: personal and epistemological. I have a strong passion for helping and working with children. I am certain this passion, along with my own positive experiences of engaging with nature, led to the development of this study. My career goals to work in therapy with children also impacted my decision to conduct research which adopted a child-centred approach.

In reference to my epistemological stance, I am in agreement with Smith and Osborn (2003), that participants are the experts of their own experiences. I strongly believe that children's thoughts and feelings about their experiences should be heard, which contributed to my decision to adopt a phenomenological approach to this research. Prior to data collection, I was concerned about how much verbal data I was going to be able to elicit from the children, given their young age, which was essential for IPA. This led to the decision to adopt numerous techniques into the data collection process. I feel my existing rapport with the children in the nursery contributed to the relaxed nature of the children and willingness to take part in the research. Additionally, having known the children for a few years, I felt confident in my interpretative ability.

Up until this experience, I thought that all interactions with nature would be positive. Afterwards, I understood that there were some aspects of the eco-therapy activity which two children did not enjoy, which was surprising to me. Conducting this research has significantly developed my knowledge on why eco-therapy is an effective psychotherapy, and also enlightened me on the children's perceptions of



their experience. This experience was valuable to me because my confidence in conducting interviews and analysing data has increased profoundly. My independence has developed immensely throughout this piece of work, which is important for my future prospects to complete a postgraduate course in play therapy next year.

## References

- Abraham, A., Sommerhalder, K., Abel, T. (2010) 'Landscape and well-being: a scoping study on the health-promoting impact of outdoor environments.' *Int J Public Health*, 55(1) pp. 59-69.
- Altman, I. and Low, S. (1992) *Place Attachment*. New York: Plenum.
- Andrew, S. and Halcomb, E. (2009) *Mixed Methods Research for Nursing and Health Sciences*. London: Wiley-Blackwell.
- Becker, S. (2009) 'Wilderness Therapy: Ethical Considerations for Mental Health Professionals.' *Child and Youth Care Forum*, 39(1) pp. 47-61.
- Birt, L., Scott, S., Cavers, D., Campbell, C. and Walter, F. (2016) 'Member Checking: A Tool to Enhance Trustworthiness or Merely a Nod to Validation?' *Qualitative Health Research*, 26(13) pp. 1802-1811.
- Bragg, R., Wood, C. and Barton, J. (2013) *Ecominds Effects on Mental Wellbeing*. London: MIND, pp. 4-7.
- Buzzell, L. and Chalquist, C. (2009) 'Psyche and nature in a circle of healing.' In Buzzell, L. and Chalquist, C. (ed.) *Ecotherapy: Healing with Nature in Mind*. San Francisco: Sierra Cub Books.
- Cameron, H. (2005) 'Asking the tough questions: a guide to ethical practices in interviewing young children.' *Early Child Development and Care*, 175(6) pp. 597-610.
- Capuzzi, D. (2016) *Human Growth and Development Across the Lifespan: Applications for Counselors*. New Jersey: John Wiley & Sons.
- Chesley, G., Gillett, D. and Wagner, W. (2011) 'Verbal and nonverbal metaphor with children in counselling.' *Journal of Counselling and Development*, 86(4) pp. 399-411.
- Chown, A. (2014) *Play Therapy in the Outdoors: Taking Play Therapy out of the Playroom and into Natural Environments*. London: Jessica Kingsley Publishers.
- Christensen, P. and James, A. (2008) *Research with Children: Perspectives and Practices*. 2<sup>nd</sup> ed., New York: Routledge.
- Clatworthy, J. (2013) 'Gardening as a mental health intervention: a review.' *Mental Health Review Journal*, 18(4) pp. 214-225.

- Corazon, S., Stigsdotter, U., Moeller, M. and Rasmuseen, S. (2012) 'Nature as therapist: integrating permaculture with mindfulness and acceptance-based therapy in the Danish Healing Forest Garden Nacadia.' *European Journal of Psychotherapy and Counselling*, 14(4) pp. 335-347.
- Corazon, S., Nyed, P., Sidenius, U., Poulsen, D. and Stigsdotter, U. (2018) 'A long-term follow-up of the efficacy of nature-based therapy for adults suffering from stress related illnesses on levels of healthcare consumption and sick leave absence: a randomized controlled trial.' *International Journal of Environmental Research*, 15(1) p. 137.
- Dallago, L., Lenzie, M., Perkins, D. and Santinello, M. (2012) 'Place Attachment in adolescence. In Levesque, J. (ed.) *Encyclopedia of Adolescence*. New Deli: Springer, pp. 2083-2091.
- Dockett, S., & Perry, B. (2005b) "You need to know how to play safe': Children's experiences of starting school.' *Contemporary Issues in Early Childhood*, 6(1), pp. 4-18.
- Early Learning HQ. (2017) *Gardening in Early Years Settings*. [online] [Accessed on 13 November 2017] <https://www.earlylearninghq.org.uk/earlylearninghq-blog/gardening-in-early-years-settings/>
- Einarsdottir, J. (2007) 'Research with children: methodological and ethical challenges.' *European Early Childhood Education Research Journal*, 15(2) pp. 192-211.
- Feltham, C., Hanley, T. and Winter, L. (2017) *The Sage Book of Counselling and Psychotherapy*. 4<sup>th</sup> ed., London: SAGE.
- Finlay, L. (2015) 'Sensing and making sense: embodying metaphor in relational-centred psychotherapy.' *The Humanistic Psychologist*, 43(4) pp. 338-353.
- Franco, L., Sanahan, D. and Fuller, R. (2017) 'A review of the benefits of nature experiences: more than meets the eye.' *International Journal of Environment Research and Public Health*, 14(8) p. 864.
- Gibbons, M., Crits-Christoph, P., Levinson, J. and Barber, J. (2003) 'Flexibility in manual-based psychotherapies: predictors of therapist interventions in interpersonal and cognitive-behavioural therapy.' *Psychotherapy Research*, 13(2) pp. 169-185.
- Gibbs, R. (2003) 'Embodied Experience and Linguistic Meaning.' *Brain and Language*, 84(1) pp. 1-15.
- Gonzalez, M., Hartig, T., Patil, G., Martinsen, E. and Kirkevold, M. (2009) 'Therapeutic Horticulture in Clinical Depression: A Prospective Study'. *Research and Theory for Nursing Practice*, 23(4) pp. 312-328.

- Greenleaf, A., Bryant, R. and Pollock, J. (2013) 'Nature-Based Counselling: Integrating the Healing Benefits of Nature into Practice'. *International Journal for the Advancement of Counselling*, 36(2) pp. 162-174
- Halfpenny, E. (2010) 'Pro-environmental behaviors and park visitors: The effect of place attachment.' *Journal of Environmental Psychology*, 30(1) pp. 409–421.
- Harris, H. (2017) 'The social dimensions of horticulture.' *Health & Social Care in the Community*, 25(4) pp. 1328-1336.
- Hartford, G. (2011) 'Practical implications for the development of applied metaphor in adventure therapy.' *Journal of Adventure Education and Outdoor Learning*, 11(2) pp. 145-160.
- Hasbach, P. (2012) 'Moving therapy outdoors: techniques, challenges and ethical considerations. *Voices: The Art and Science of Psychotherapy*. 49(1) pp. 37-42.
- Hawkins, B., Townsend, J. and Garst, B. (2016) 'Nature-based recreational therapy for military service members: a strengths approach.' *Therapeutic Recreational Journal*, 50(1) p. 55+.
- Hegarty, J. (2010) 'Out of the consulting room and into the woods? Experiences of nature-connectedness and self-healing.' *European Journal of Ecopsychology*, 1, October, pp. 64-84.
- House, R. (2006) 'Commentary: taking therapy beyond modernity? The promise and limitations of a Levinasian understanding.' *European Journal of Psychotherapy and Counselling*, 7(1) pp. 97-108.
- Howitt, D. (2010) *Introduction to Qualitative Methods in Psychology*. Essex: Pearson.
- Jarareh, J., Mohammadi, A., Nader, M., Moosavian, S. and Elmer, S. (2016) 'The impact of group play therapy on creativity and control of aggression in preschool children.' *Cogent Psychology*, 3(1) pp. 1-9.
- Jefferson, G. (2004) 'Glossary of transcript symbols with an introduction.' In Lerner, G. (ed.) *Conversation Analysis: Studies from the First Generation*. Amsterdam: John Benhamins, pp. 13-31.
- Jornda, M. and Marshall, H. (2010) 'Taking counselling and psychotherapy outside: destruction or enrichment of the therapeutic frame?' *European Journal of Psychotherapy and Counselling*, 12(4) pp. 345-359.
- Jordan, M. (2014) 'Moving beyond counselling and psychotherapy as it currently is – taking therapy outside.' *European Journal of Psychotherapy and Counselling*, 16(4) pp. 361-365.
- Kam, M. and Siu, A. (2010) 'Evaluation of a horticultural activity programme for persons with psychiatric illness.' *Hong Kong Journal of Occupational Therapy*, 20(2) pp. 80-86.

Kamitsis, I. and Simmonds, J. (2017) 'Using Resources of Nature in the Counselling Room: Qualitative Research into Ecotherapy Practice'. *International Journal for the Advancement of Counselling*, 39(3) pp. 229-248.

Khan, M. (2014) 'Semiotics: the representation, construction and evaluation of reality.' *Language in India*, 14(9) p. 78+.

Kockaya, S. and Siyez, D. (2017) 'Effect of play therapy applications on shyness behaviours of pre-school children.' *Psikiyatride Guncel Yaklasimlar*, 9(1) pp. 31-44.

Kopp, R. (1995) *Metaphor Therapy: Using Client Generate Metaphors in Psychotherapy*. New York: Brunner/Mazel Publishers, Inc.

Kostelnik, M., Gregory K., Soderman, A. and Whiren, A. (2011) *Guiding Children's Social Development and Learning*. United Kingdom: Cengage Learning.

Landreth, G. (2012) *Play therapy: The art of the relationship*. 3rd ed. New York, NY: Routledge.

Larson, J. and Meyer, M. (2007) *Generations gardening together*. New York: Food Products Press.

Lin, Y. and Bratton, S. (2015) 'A Meta-Analytic Review of Child-Centred Play Therapy Approaches'. *Journal of Counselling & Development*, 93(1) pp. 45-58.

Linden, S. and Grut, J. (2002) *The Healing Fields: Working with Psychotherapy and Nature to Rebuild Shattered Lives*. London: Frances Lincoln Limited.

Linzmayr, C., Halpenny, E. and Walker, G. 2013. 'A Multidimensional Investigation into Children's Optimal Experiences with Nature.' *Landscape Research*, 39(5) pp. 481-50.

Long, A. and Godfrey, M. (2004) 'An evaluation tool to assess the quality of qualitative research studies.' *International Journal of Social Research Methodology*, 7(2) pp. 181-196.

Macdonald, A. (2009) 'Drawing stories: the power of children's drawings to communicate the lived experience of starting school.' *Australian Journal of Early Childhood*, 34(3) pp. 40-49.

Malet, M., McSherry, D., Larkin, E. and Robinson, C. (2010) 'Research with children: methodological issues and innovative techniques.' *Journal of Early Childhood Research*, 8(2) pp. 175-192.

Malterud, K., Siersma, V. and Guassora, A. (2016) 'Sample Size in Qualitative Interview Studies'. *Qualitative Health Research*, 26(13) pp. 1753-1760.

Manchester Metropolitan University. (2011) *Academic Ethical Framework*. [online] [Accessed on 11 November 2017]  
[http://www.mmu.ac.uk/policy/pdf/policy\\_ref\\_Academic\\_Ethical\\_Framework.pdf](http://www.mmu.ac.uk/policy/pdf/policy_ref_Academic_Ethical_Framework.pdf)

Manchester Metropolitan University. (2017) *Encryption for USB Devices*. [online] [Accessed on 9 November 2017] <https://www2.mmu.ac.uk/isds/support/information-security/encryption/>

McLeod, J. (2012) 'What do clients want from therapy? A practice-friendly review of research into client preferences.' *European Journal of Psychotherapy and Counselling*, 14(1) pp. 19-32.

Mind. (2015) *Ecotherapy*. [Online] [Accessed on 4 April 2018] <https://www.mind.org.uk/about-us/our-policy-work/ecotherapy/>.

Mosavi, H. and Koolaee, A. (2016) 'Effectiveness of client-centred play therapy on fear and anxiety in preschool children.' *Community Health (Salāmat-i ijtimāī)*, 3(4) pp. 261-269.

O'Brien, L. and Murray, R. (2007) 'Forest school and its impact on young children: Case studies in Britain.' *Urban For. Urban Green*. 6(1), pp. 249-265.

Pitard, J. (2017) 'A Journey to the Centre of the Self: Positioning the Researcher in Autoethnography.' *Qualitative Social Research*, 18(3) pp. 1-20.

Poulsen, D., Stigsdotter, U., Djernis, D. and Sidenius, U. (2016) "Everything just seems much more right in nature": How veterans with post-traumatic stress disorder experience nature-based activities in a forest therapy garden.' *Health Psychology Open*, 3(1) pp. 1-14.

Pramling, N. (2010) 'Unearthing metaphors: figurativeness in teacher-child talk about soil and related matters.' *Early Childhood Education Journal*, 38(1) pp. 57-64.

Rafati, F, Pourmohamadezra-Tajrishi, M., Pishyareh, E. Mirzaei, H. and Biglarian, A. (2016) 'Effectiveness of group play therapy on the communication of 5-8-year-old children with high functioning autism.' *Archives of Rehabilitation*, 17(3) pp. 200-211.

Reese, R. (2016) 'Eco-wellness & guiding principles for the ethical integration of nature into counselling.' *International Journal for the Advancement of Counselling*, 38(4) pp. 345-357.

Robinson, C. and Zajicek, J. (2005) 'Growing minds: The effects of a one-year school garden program on six constructs of life skills of elementary school children.' *HortTechnology*, 15(3) pp. 453-457.

Rye, N. (2008) 'Play therapy as a mental health intervention for children and adolescents: play therapy has much offer children who have had traumatic experiences or suffer from mental health and other problems.' *Journal of Family Healthcare*, 18(1) pp. 17-19.

Saussure, F. (1983) *Course in General Linguistics*. Court publishing: Chicago.

Schafer, R. (1994) *The Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester: Destiny Books.

Scott, T.A., Burlingame, G., Starling, M., Porter, C. and Lilly, J.P. (2003) 'Effects of individual client-centred play therapy on sexually abused children's mood, self-concept, and social competence.' *International Journal of Play Therapy*, 12(1) pp. 7-30.

Shaw, C., Brady, L. and Davey, C. (2011) *Guidelines for Research with Children and Young People*. London: National Children's Bureau Research Centre. [Online] [Accessed on 18<sup>th</sup> February 2018] Available from: <https://www.nfer.ac.uk/nfer/schools/developing-young-researchers/NCBguidelines.pdf>.

Skårderud, F. (2007) 'Eating one's words, Part II: the embodied mind and reflective function in anorexia nervosa—theory.' *European Eating Disorders Review*, 15(1) pp. 243-252.

Smith, J and Osborn, M. 2003. "Interpretative phenomenological analysis". In *Qualitative psychology: A practical guide to research methods*, Edited by: Smith, JA. London: Sage.

Smith, J. and Osborn, M. (2008) 'Qualitative psychology: a practical guide to research methods.' In Smith, J. *Interpretative Phenomenological Analysis*. London: SAGE Publications, pp. 53-80.

Smith, J., Flowers, P. and Larkin, M. (2009) *Interpretative phenomenological analysis: Theory, Method and Research*. London: Sage.

Smith, J., Breakwell, G. and Wright, D. (2012) *Research methods in psychology*. 4th ed. London: SAGE.

Snow, M., Ouzts, R., Martin, E. and Helm, H. (2005) 'Creative metaphors of life experiences seen in play therapy.' *Compelling Perspectives on Counselling*, 1(1) pp. 63-65.

Soga, M., Gaston, K. and Yamaura, Y. (2017) 'Gardening is beneficial for health: A meta-analysis.' *Preventive Medicine Reports*, 5, March, pp. 92-99.

Swank, J., Shin, S., Cabrita, C., Cheung, C. and Rivers, B. (2015). 'Initial Investigation of Nature-Based, Child-Centered Play Therapy: A Single-Case Design.' *Journal of Counselling & Development*, 93(4) pp. 440-450.

The British Psychological Society. (2009) *Code of Ethics and Conduct*. [online] [Accessed on 11 November 2017] <https://beta.bps.org.uk/sites/beta.bps.org.uk/files/Policy%20-%20Files/Code%20of%20Ethics%20and%20Conduct%20%282009%29.pdf>

Trice-Black, S., Bailey, C. & Riechel, M. (2013) "Play therapy in school counselling." *Professional School Counselling*, 16(5) pp. 303-312.

Watt, D. (2007) 'On becoming a qualitative researcher: The value of reflexivity.' *The Qualitative Report*, 12(1) pp. 82-101.

Wagener, A. (2017) 'Metaphor in professional Counselling.' *The Professional Counsellor*, 7(2) pp. 144-154.

Weber, S. and Heuberger, E. (2008) 'The impact of natural odors on affective states in humans.' *Chemical Senses*, 33(5) pp. 441–447.

Wesson, M. and Salmon, K. (2001) 'Drawing and showing: Helping children to report emotionally laden events.' *Applied Cognitive Psychology*, 15(3) pp. 301-320.

Willig, C. (2013) *Introducing Qualitative Research in Psychology*. 3<sup>rd</sup> ed., Berkshire: Open University Press.

Yang, B. (2018) 'Interpersonal metaphor revisited: identification, categorisation and syndrome.' *Social Semiotics*, 4(1) pp. 1-18.